

SEQUENCE LISTING

<110> CHAN, Lily

CHUNG, Maxey Ching Ming
LIM, Renee Lay Hong

<120> Bacterial-derived molecules and therapeutic and
diagnostic uses therefor

<130> 1781-0180P

<140> US 09/461,774

<141> 1999-12-15

<160> 22

<170> PatentIn Ver. 2.1

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Gly Arg His Val Val Leu Ala Lys Ala Phe Gly Gly Pro Thr Val Thr
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Asn Asp Gly Val Thr Val Ala Arg Glu Ile Glu Leu Glu Asp Pro Phe
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gat gtt gcc ggt gac ggc acc acc gca acc atc ttg gcg cag gca Asp Val Ala Gly Asp Gly Thr Thr Ala Thr Ile Leu Ala Gln Ala	85	90		95	288
ctg atc aag ggc ggc ctg agg cta gtg gcc gcc ggc gtc aac ccg gtc Leu Ile Lys Gly Gly Leu Arg Leu Val Ala Ala Gly Val Asn Pro Val	100	105		110	336
gcg ctc ggc gtg gga atc ggc aag gcc gac gcg gta ttc gag gcg Ala Leu Gly Val Gly Ile Gly Lys Ala Ala Asp Ala Val Phe Glu Ala	115	120		125	384
ctg ctg gca tcg gcc acg ccg gtg tcc ggc aag acc ggc atc gcg cag Leu Leu Ala Ser Ala Thr Pro Val Ser Gly Lys Thr Gly Ile Ala Gln	130	135		140	432
gtg gcg acg gtg tcc tcg cgc gac gag cag atc ggt gac ctg gtt ggc Val Ala Thr Val Ser Ser Arg Asp Glu Gln Ile Gly Asp Leu Val Gly	145	150	155	160	480
gaa gcg atg aac aag gtc ggc cac gac agc gtg gtc agc gtc aag gaa Glu Ala Met Asn Lys Val Gly His Asp Ser Val Val Ser Val Lys Glu	165	170		175	528
tcc tcc acg ctg ggc acc gag ttg gag ttc acc gaa ggt att ggc ttc Ser Ser Thr Leu Gly Thr Glu Leu Glu Phe Thr Glu Gly Ile Gly Phe	180	185		190	576
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cag gcg gtg ctc gag gac gcg ttg atc ctg cta cac caa gac aag atc Gln Ala Val Leu Glu Asp Ala Leu Ile Leu Leu His Gln Asp Lys Ile	210	215		220	672
agc tcg ctt ccc gat ctg ttg cca ttg ctg gaa aag gtt gca gga acg Ser Ser Leu Pro Asp Leu Leu Pro Leu Leu Glu Lys Val Ala Gly Thr	225	230	235	240	720
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Leu	Glu	Arg	Phe	Gly	Thr	His	Val	Arg	Ala	Met	Val	Leu	Asp	Gly	Ala	
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agc tac ggg cag ttc acc gga tcc gcc ccc cgc gat ctg tgc gcg ctg Ser Tyr Gly Gln Phe Thr Gly Ser Ala Pro Arg Asp Leu Cys Ala Leu	420	425	430		1296
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gct ggc aag gtc gtc gtg tcc acc acc cac gac ccg gcc act ccg Ala Gly Lys Val Val Val Ser Thr Thr His Asp Pro Ala Thr Pro	450	455	460		1392
tat cag tcc ggg gta gac ctg gcc cgc cag ctg ggc gca ccg ctg atc Tyr Gln Ser Gly Val Asp Leu Ala Arg Gln Leu Gly Ala Pro Leu Ile	465	470	475	480	1440
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Gln Leu Tyr Arg Arg Thr Leu Asn Val Ala Gln Glu Leu Ser Arg Cys			
20	25	30	
Gly Ser Thr Gly Asp Arg Val Val Ile Ser Ala Pro Gln Gly Leu Glu			
35	40	45	
Tyr Val Val Ala Tyr Leu Gly Ala Leu Gln Ala Gly Arg Ile Ala Val			
50	55	60	
Pro Leu Ser Val Pro Gln Gly Gly Val Thr Asp Glu Arg Ser Asp Ser			
65	70	75	80
Val Leu Ser Asp Ser Ser Pro Val Ala Ile Leu Thr Thr Ser Ser Ala			

85	90	95
Val Asp Asp Val Val Gln His Val Ala Arg Arg Pro Gly Glu Ser Pro		
100	105	110
Pro Ser Ile Ile Glu Val Asp Leu Leu Asp Leu Asp Ala Pro Asn Gly		
115	120	125
Tyr Thr Phe Lys Glu Asp Glu Tyr Pro Ser Thr Ala Tyr Leu Gln Tyr		
130	135	140
Thr Ser Gly Ser Thr Arg Thr Pro Ala Gly Val Val Met Ser His Gln		
145	150	155
Asn Val Arg Val Asn Phe Glu Gln Leu Met Ser Gly Tyr Phe Ala Asp		
165	170	175
Thr Asp Gly Ile Pro Pro Pro Asn Ser Ala Leu Val Ser Trp Leu Pro		
180	185	190
Phe Tyr His Asp Met Gly Leu Val Ile Gly Ile Cys Ala Pro Ile Leu		
195	200	205
Gly Gly Tyr Pro Ala Val Leu Thr Ser Pro Val Ser Phe Leu Gln Arg		
210	215	220
Pro Ala Arg Trp Met His Leu Met Ala Ser Asp Phe His Ala Phe Ser		
225	230	235
Ala Ala Pro Asn Phe Ala Phe Glu Leu Ala Ala Arg Arg Thr Thr Asp		
245	250	255
Asp Asp Met Ala Gly Arg Asp Leu Gly Asn Ile Leu Thr Ile Leu Ser		
260	265	270
Gly Ser Glu Arg Val Gln Ala Ala Thr Ile Lys Arg Phe Ala Asp Arg		
275	280	285
Phe Ala Arg Phe Asn Leu Gln Glu Arg Val Lys Ala		
290	295	300

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 <211> 432
 <212> DNA
 <213> Mycobacterium tuberculosis

<220>
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 <222> (1)..(432)

<220>
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 Ala Thr Thr Leu Pro Val Gln Arg His Pro Arg Ser Leu Phe Pro Glu
 1 5 10 15

ttt tct gag ctg ttc gcg gcc ttc ccg tca ttc gcc gga ctc cgg ccc			96
Phe Ser Glu Leu Phe Ala Ala Phe Pro Ser Phe Ala Gly Leu Arg Pro			
20	25	30	
acc ttc gac acc cggtt atg cggtt ctg gaa gac gag atg aaa gag ggg			144
Thr Phe Asp Thr Arg Leu Met Arg Leu Glu Asp Glu Met Lys Glu Gly			
35	40	45	
cgc tac gag gta cgc gcg gag ctt ccc ggg gtc gac ccc gac aag gac			192
Arg Tyr Glu Val Arg Ala Glu Leu Pro Gly Val Asp Pro Asp Lys Asp			
50	55	60	
gtc cac att atg gtc cgc gat ggt cag ctg acc atc aag gcc gag cgc			240
Val His Ile Met Val Arg Asp Gly Gln Leu Thr Ile Lys Ala Glu Arg			
65	70	75	80
acc gag cag aag gac tta gac ggt cgc tcg gaa ttc gcg tac ggt tcc			288
Thr Glu Gln Lys Asp Leu Asp Gly Arg Ser Glu Phe Ala Tyr Gly Ser			
85	90	95	
ttc gtt cgc acg gtg tcg ctg ccg gta ggt gct gac gag gac gac att			336
Phe Val Arg Thr Val Ser Leu Pro Val Gly Ala Asp Glu Asp Asp Ile			
100	105	110	
aag gcc acc tac gac aag ggc att ctt act gtg tcg gtg gcg gtt tcg			384
Lys Ala Thr Tyr Asp Lys Gly Ile Leu Thr Val Ser Val Ala Val Ser			
115	120	125	
gaa ggg aag cca acc gaa aag cac att cag atc cgg tcc acc aac tga			432
Glu Gly Lys Pro Thr Glu Lys His Ile Gln Ile Arg Ser Thr Asn			
130	135	140	

<210> 8
<211> 143
<212> PRT
<213> Mycobacterium tuberculosis

<400> 8

Ala Thr Thr Leu Pro Val Gln Arg His Pro Arg Ser Leu Phe Pro Glu			
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Phe Ser Glu Leu Phe Ala Ala Phe Pro Ser Phe Ala Gly Leu Arg Pro			
20	25	30	
Thr Phe Asp Thr Arg Leu Met Arg Leu Glu Asp Glu Met Lys Glu Gly			
35	40	45	
Arg Tyr Glu Val Arg Ala Glu Leu Pro Gly Val Asp Pro Asp Lys Asp			
50	55	60	
Val His Ile Met Val Arg Asp Gly Gln Leu Thr Ile Lys Ala Glu Arg			

65 70 75 80
Thr Glu Gln Lys Asp Leu Asp Gly Arg Ser Glu Phe Ala Tyr Gly Ser
 85 90 95
Phe Val Arg Thr Val Ser Leu Pro Val Gly Ala Asp Glu Asp Asp Ile
 100 105 110
Lys Ala Thr Tyr Asp Lys Gly Ile Leu Thr Val Ser Val Ala Val Ser
 115 120 125
Glu Gly Lys Pro Thr Glu Lys His Ile Gln Ile Arg Ser Thr Asn
 130 135 140

<210> 9
<211> 1161
<212> DNA
<213> Mycobacterium tuberculosis

<220>
<221> CDS
<222> (1)..(1161)

<220>
<221> mat_peptide
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aac ccg ccg gtg ccg ccg gtg ccg ccg cta ccg gcc gcg ccc ccg acg 96
Asn Pro Pro Val Pro Pro Val Pro Pro Leu Pro Ala Ala Pro Arg Thr
 20 25 30

ctg tcg ccg ccg gta ccg ccg gcg ccg ccg tcg ccg atc agc ttg gcg 144
Leu Ser Pro Pro Val Pro Pro Ala Pro Pro Ser Pro Ile Ser Leu Ala
 35 40 45

gcc ccg ccg ctg cca ccg gac ccg ccg atg ccg ccg gcc att tgg tcc 192
Ala Pro Pro Leu Pro Pro Asp Pro Met Pro Pro Ala Ile Trp Ser
 50 55 60

gca ctg gag gcg ccg aac cct ccg gtg ccc ccg gcg ccg gga ccg 240
Ala Leu Glu Ala Pro Asn Pro Pro Val Pro Pro Ala Pro Pro Gly Pro
 65 70 75 80

aac agt gcg ccg gca ccg ccg atg ccg ccg acg cct cct ttg ccg ccg 288
Asn Ser Ala Pro Ala Pro Pro Met Pro Pro Thr Pro Pro Leu Pro Pro

85	90	95	
gtg ccg ccg ggg tcg ggc gcg ccg aga ccg gtt ccg gcg gtg ccg cca Val Pro Pro Gly Ser Gly Ala Pro Arg Pro Val Pro Ala Val Pro Pro			336
100	105	110	
atg ccg cca gcg ccg aag agg atg ccg gcg ttg ccg ccc gcc ccg ccg Met Pro Pro Ala Pro Lys Arg Met Pro Ala Leu Pro Pro Ala Pro Pro			384
115	120	125	
gcc ccg ccc tca ccg ccc acg agt tgg tta gcg gtg cca gtt ccg ccg Ala Pro Pro Ser Pro Pro Thr Ser Trp Leu Ala Val Pro Val Pro Pro			432
130	135	140	
gtg ccg ccg gtc ccg ccg ttg ccg gtg aag atg ccg ccg tcg cct ccg Val Pro Pro Val Pro Leu Pro Val Lys Met Pro Pro Ser Pro Pro			480
145	150	155	160
gtg ccg ccg ttc cct ccg gcc gag ccg gag act ccg aac ccg ccg gcg Val Pro Pro Phe Pro Pro Ala Glu Pro Glu Thr Pro Asn Pro Pro Ala			528
165	170	175	
ccg ccg gca ccg cca ttg gag aac agc ccg ccg ccc ccg ccg gtg ccg Pro Pro Ala Pro Pro Leu Glu Asn Ser Pro Pro Pro Pro Val Pro			576
180	185	190	
ccg gtg cca ccg gtg ccc ccg ttg acg ctc aac ccg ccg gtg ccg ccg Pro Val Pro Pro Val Pro Pro Leu Thr Leu Asn Pro Pro Val Pro Pro			624
195	200	205	
gca ccg ccg gcg gcc aac acc tcg aac agc ccg ctg cga ccg ccg gcc Ala Pro Pro Ala Ala Asn Thr Ser Asn Ser Pro Leu Arg Pro Pro Ala			672
210	215	220	
ccg ccg gcg cca ccg ttg aag cct ggc ccg ccg gcc ccg ccg atg cca Pro Pro Ala Pro Pro Leu Lys Pro Gly Pro Pro Ala Pro Pro Met Pro			720
225	230	235	240
ccg gct ccg aac agc ccg gcc ccg ccg tcg ccg ccg agc ccg cct Pro Ala Pro Asn Ser Pro Ala Ala Pro Pro Ser Pro Pro Ser Pro Pro			768
245	250	255	
gtg ccg gtg ttc ccg act ccg ccg ggc ccc ccg gcg ccg ccg gag ccg Val Pro Val Phe Pro Thr Pro Pro Gly Pro Pro Ala Pro Pro Glu Pro			816
260	265	270	
aac agc agc ccg ccg gcc ccg ccg cca gcc gcg ccg ttg ccc Asn Ser Ser Pro Pro Ala Pro Pro Ala Ala Pro Leu Pro			864

275	280	285	
ggg ccg tca ccc ccg gcc cca ccc gcc ccg ccg ttg ccg aat agc ccc Gly Pro Ser Pro Pro Ala Pro Pro Ala Pro Pro Leu Pro Asn Ser Pro 290	295	300	912
gct cca cct ggg ccg ccg gcc tgg ccg ggc gcc ccg gac ccg ccg Ala Ala Pro Pro Gly Pro Pro Ala Trp Pro Gly Ala Pro Asp Pro Pro 305	310	315	960
gcc ccg ccg ttg ccg tac agc agc ccg ccg gcc ccg ccg gct tgc ccg Ala Pro Pro Leu Pro Tyr Ser Ser Pro Pro Ala Pro Pro Ala Cys Pro 325	330	335	1008
gtc ccc ggt gcg ccg ttg gcg ccg ttg ccg atc agc gga cgc ccc agc Val Pro Gly Ala Pro Leu Ala Pro Leu Pro Ile Ser Gly Arg Pro Ser 340	345	350	1056
aac agc tgg gtg ggc gtg ttc aca atg ttg agc agg ccc tcc aac ggc Asn Ser Trp Val Gly Val Phe Thr Met Leu Ser Arg Pro Ser Asn Gly 355	360	365	1104
gcc gcg gcg gcg gcc tca gcg ctc gcg tac gcg cca gcg ccc gca gta Ala Ala Ala Ala Ser Ala Leu Ala Tyr Ala Pro Ala Pro Ala Val 370	375	380	1152
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<p><400> 10 Asn Ser Met Pro Val Pro Pro Ala Pro Pro Ala Pro Pro Ser Pro Ile 1 5 10 15 Asn Pro Pro Val Pro Pro Val Pro Pro Leu Pro Ala Ala Pro Arg Thr 20 25 30 Leu Ser Pro Pro Val Pro Pro Ala Pro Pro Ser Pro Ile Ser Leu Ala 35 40 45 Ala Pro Pro Leu Pro Pro Asp Pro Pro Met Pro Pro Ala Ile Trp Ser 50 55 60 Ala Leu Glu Ala Pro Asn Pro Pro Val Pro Pro Ala Pro Pro Gly Pro 65 70 75 80 Asn Ser Ala Pro Ala Pro Pro Met Pro Pro Thr Pro Pro Leu Pro Pro</p>			

85	90	95
Val Pro Pro Gly Ser Gly Ala Pro Arg Pro Val Pro Ala Val Pro Pro		
100	105	110
Met Pro Pro Ala Pro Lys Arg Met Pro Ala Leu Pro Pro Ala Pro Pro		
115	120	125
Ala Pro Pro Ser Pro Pro Thr Ser Trp Leu Ala Val Pro Val Pro Pro		
130	135	140
Val Pro Pro Val Pro Pro Leu Pro Val Lys Met Pro Pro Ser Pro Pro		
145	150	155
Val Pro Pro Phe Pro Pro Ala Glu Pro Glu Thr Pro Asn Pro Pro Ala		
165	170	175
Pro Pro Ala Pro Pro Leu Glu Asn Ser Pro Pro Pro Pro Val Pro		
180	185	190
Pro Val Pro Pro Val Pro Pro Leu Thr Leu Asn Pro Pro Val Pro Pro		
195	200	205
Ala Pro Pro Ala Ala Asn Thr Ser Asn Ser Pro Leu Arg Pro Pro Ala		
210	215	220
Pro Pro Ala Pro Pro Leu Lys Pro Gly Pro Pro Ala Pro Pro Met Pro		
225	230	235
Pro Ala Pro Asn Ser Pro Ala Ala Pro Pro Ser Pro Pro Ser Pro Pro		
245	250	255
Val Pro Val Phe Pro Thr Pro Pro Gly Pro Pro Ala Pro Pro Glu Pro		
260	265	270
Asn Ser Ser Pro Pro Ala Pro Pro Ala Pro Pro Ala Ala Pro Leu Pro		
275	280	285
Gly Pro Ser Pro Pro Ala Pro Pro Ala Pro Pro Leu Pro Asn Ser Pro		
290	295	300
Ala Ala Pro Pro Gly Pro Pro Ala Trp Pro Gly Ala Pro Asp Pro Pro		
305	310	315
Ala Pro Pro Leu Pro Tyr Ser Ser Pro Pro Ala Pro Pro Ala Cys Pro		
325	330	335
Val Pro Gly Ala Pro Leu Ala Pro Leu Pro Ile Ser Gly Arg Pro Ser		
340	345	350
Asn Ser Trp Val Gly Val Phe Thr Met Leu Ser Arg Pro Ser Asn Gly		
355	360	365
Ala Ala Ala Ala Ala Ser Ala Leu Ala Tyr Ala Pro Ala Pro Ala Val		
370	375	380
Lys Val		
385		

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<400> 11

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1 5 10 15

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1 5 10 15

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1 5 10

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1 5 10

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1 5 10

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1 5 10

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<400> 19
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1 5 10

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1 5 10

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<212> PRT

<213> Mycobacterium tuberculosis

<400> 21

Ala Thr Thr Leu Pro Val Gln Arg His Asp Ala Arg Leu
1 5 10

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<212> PRT

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<400> 22

Ala Thr Leu Pro Val Gln Arg His Pro Arg Ser Leu
1 5 10